

IN THE CLAIMS:

Please amend Claim 18 to read as follows.

The following is a complete listing of the claims in this application, reflects any changes currently being made to the claims, and replaces all earlier versions and all earlier listings of the claims:

1. (Previously Amended) An electron-emitting device comprising a pair of electric conductors disposed on a substrate and a pair of films composed chiefly of carbon and connected to said pair of electric conductors and disposed with a gap interposed therebetween, wherein said films contain therein one or more kinds of elements selected from the group of lithium, potassium, sodium, calcium, strontium and barium within the range of 1 mol% to 5 mol% in terms of the percentage to carbon.

2. (Previously Amended) An electron-emitting device comprising a pair of device electrodes disposed on a substrate, an electrically conductive film connected to said pair of device electrodes and having a fissure between the pair of device electrodes, and a carbon film composed chiefly of carbon and formed in said fissure and on an area including said fissure and having in said fissure a gap of a width narrower than said fissure, wherein said carbon film contains therein one or more kinds of elements selected from the group of lithium, potassium, sodium, calcium, strontium and barium within the range of 1 mol% to 5 mol% in terms of the percentage to carbon.

3. (Previously Amended) An electron source comprising a plurality of electron-emitting devices according to Claim 1 or 2 disposed on a substrate, and wirings connected to said electron-emitting devices.

4. (Previously Amended) An image forming apparatus comprising an electron source according to Claim 3, and an image forming member for effecting image formation by electrons emitted from said electron source colliding against it.

5. (Previously Added) An electron-emitting device comprising a pair of electric conductors disposed on a substrate and a pair of films composed chiefly of carbon and connected to said pair of electric conductors and disposed with a gap interposed therebetween, wherein said films contain therein one or more kinds of elements selected from the group of lithium, potassium, sodium, calcium, strontium and barium of 5 mol% or less in terms of the percentage of carbon.

6. (Previously Added) An electron-emitting device comprising a pair of device electrodes disposed on a substrate, an electrically conductive film connected to said pair of device electrodes and having a fissure between the pair of device electrodes, and a carbon film composed chiefly of carbon and formed in said fissure and on an area including said fissure and having in said fissure a gap of a width narrower than said fissure, wherein said carbon film contains therein one or more kinds of elements selected from the

group of lithium, potassium, sodium, calcium, strontium and barium of 5 mol% or less in terms of the percentage to carbon.

7. (Previously Added) An electron source comprising a plurality of electron-emitting devices according to Claim 5 or 6 disposed on a substrate, and wirings connected to said electron-emitting devices.

8. (Previously Added) An image forming apparatus comprising an electron source according to Claim 7, and an image forming member for effecting image formation by electrons emitted from said electron source colliding against it.

9. (Previously Added) An electron-emitting device, comprising:
a carbon film composed chiefly of carbon; and
an electrode electrically connected to the carbon film,
wherein the carbon film contains therein one or more kinds of elements selected from the group consisting of lithium, potassium, sodium, calcium, strontium, and barium of 5 mol% or less in terms of the percentage to carbon.

A 10. (Previously Added) An electron-emitting device, comprising:
a carbon film composed chiefly of carbon; and
an electrode electrically connected to the carbon film,

wherein the carbon film contains therein one or more kinds of elements selected from the group consisting of lithium, potassium, sodium, calcium, strontium, and barium of within the range of 1 mol% to 5 mol% in terms of the percentage to carbon.

11. (Previously Added) An electron source, comprising:

a substrate;

a plurality of electron-emitting devices disposed on the substrate, each electron-emitting device comprising:

a carbon film composed chiefly of carbon, and

an electrode electrically connected to the carbon film,

wherein the carbon film contains therein one or more kinds of elements selected from the group consisting of lithium, potassium, sodium, calcium, strontium, and barium of 5 mol% or less in terms of the percentage to carbon; and

wirings connected to the plurality of electron-emitting devices.

12. (Previously Added) An electron source, comprising:

a substrate;

a plurality of electron-emitting devices disposed on the substrate, each electron-emitting device comprising:

a carbon film composed chiefly of carbon, and

an electrode electrically connected to the carbon film,

wherein the carbon film contains therein one or more kinds of elements selected from the group consisting of lithium, potassium, sodium, calcium, strontium, and barium of within the range of 1 mol% to 5 mol% in terms of the percentage to carbon; and

wirings connected to the plurality of electron-emitting devices.

13. (Previously Added) An image-forming apparatus, comprising:

an image forming member; and

an electron source, comprising:

a substrate;

a plurality of electron-emitting devices disposed on the substrate,

each electron-emitting device comprising:

a carbon film composed chiefly of carbon, and

an electrode electrically connected to the carbon film,

wherein the carbon film contains therein one or more kinds of elements selected from the group consisting of lithium, potassium, sodium, calcium, strontium, and barium of 5 mol% or less in terms of the percentage to carbon; and

wirings connected to the plurality of electron-emitting devices.

14. (Previously Added) An image-forming apparatus, comprising:

an image forming member; and

an electron source, comprising:

a substrate;

a plurality of electron-emitting devices disposed on the substrate,

each electron-emitting device comprising:

a carbon film composed chiefly of carbon, and

an electrode electrically connected to the carbon film,

wherein the carbon film contains therein one or more kinds of elements selected from the group consisting of lithium, potassium, sodium, calcium, strontium, and barium of within the range of 1 mol% to 5 mol% in terms of the percentage to carbon; and

wirings connected to the plurality of electron-emitting devices.

× 15. (Previously Added) An electron-emitting device, comprising:

a carbon film composed chiefly of carbon; and

an electrode electrically connected to the carbon film,

wherein one or more elements selected from the group consisting of lithium, potassium, sodium, calcium, strontium, and barium are contained in the carbon film in a rate of 1 mol% or more with respect to carbon.

16. (Previously Added) An electron source, comprising:

a substrate;

a plurality of electron-emitting devices disposed on the substrate, each electron-emitting device being an electron-emitting device according to Claim 15; and

wirings connected to the electron-emitting devices.

17. (Previously Added) An image-forming apparatus, comprising:
an electron source according to Claim 16; and
a phosphor.

E1
18. (Currently Amended) An electron-emitting device, comprising:
a ~~carbon film~~ deposit composed chiefly of carbon including a graphite
structure; and
an electrode electrically connected to ~~the carbon film~~ said deposit,
wherein one or more elements selected from the group consisting of lithium,
potassium, sodium, calcium, strontium, and barium are contained in the ~~carbon film~~
deposit.

19. (Previously Added) An electron source, comprising:
a substrate;
a plurality of electron-emitting devices disposed on the substrate, each
electron-emitting device being an electron-emitting device according to Claim 18; and
wirings connected to the electron-emitting devices.

20. (Previously Added) An image-forming apparatus comprising:
an electron source according to Claim 19; and
a phosphor.